

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058506

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058506  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

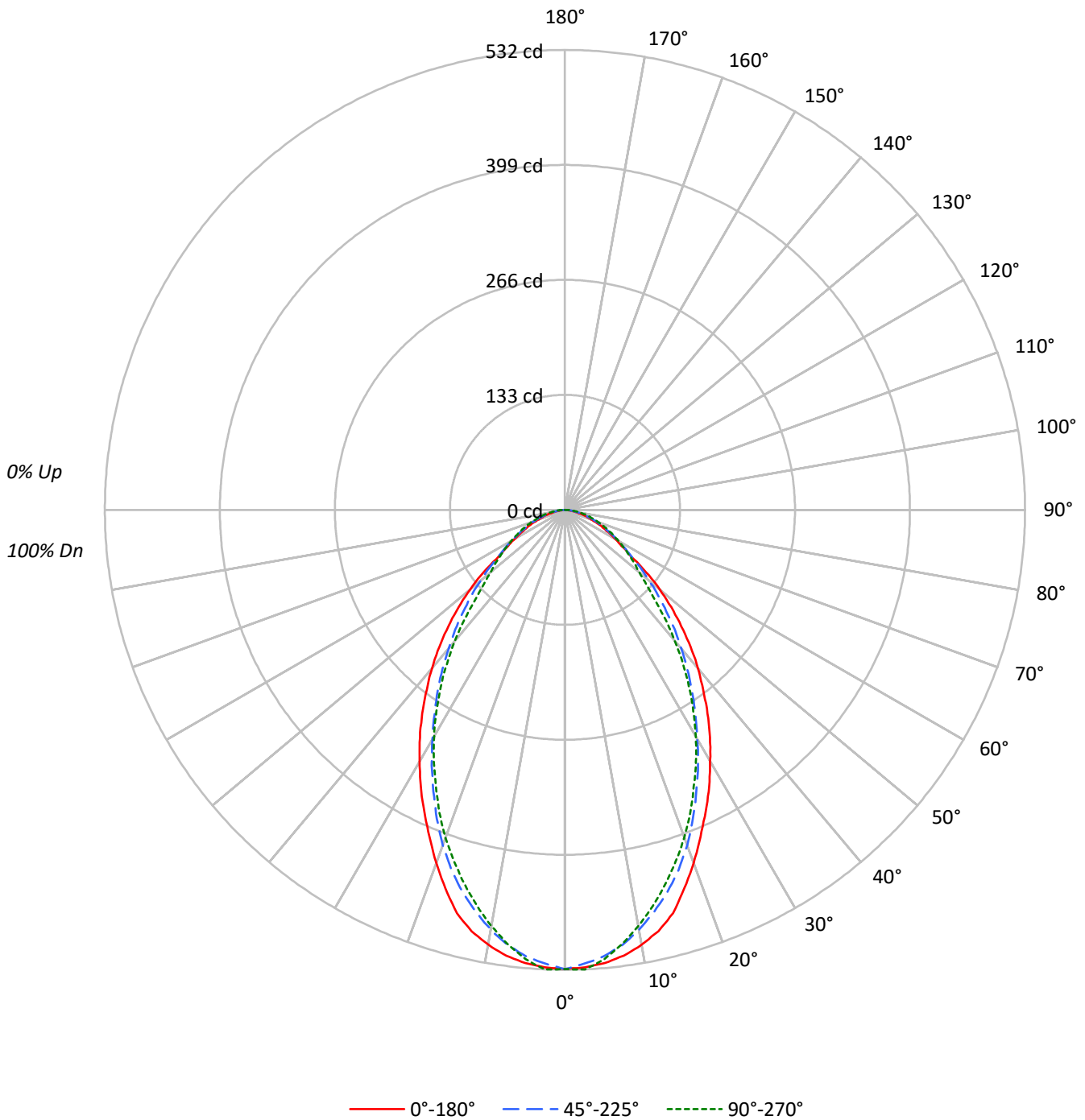
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 806.8 lumens  
Efficiency: N/A  
Efficacy: 34.3 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9802	9802	9802
5°	9747	9604	9667
10°	9573	9241	9161
15°	9227	8742	8564
20°	8538	8106	7923
25°	7837	7319	7181
30°	7155	6524	6452
35°	6479	5773	5641
40°	5767	5032	4767
45°	4966	4327	3818
50°	4105	3643	3207
55°	2966	3021	2886
60°	2465	2591	2624
65°	2105	2253	2401
70°	1732	2007	2190
75°	1447	1690	1989
80°	1084	1350	1796
85°	360	720	1609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4966 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.1	6.1
10°-20°	129.3	16.0
20°-30°	167.4	20.7
30°-40°	164.1	20.3
40°-50°	129.2	16.0
50°-60°	84.7	10.5
60°-70°	51.6	6.4
70°-80°	25.8	3.2
80°-90°	5.6	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	345.8	42.9
0°-40°	509.9	63.2
0°-60°	723.9	89.7
0°-90°	806.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	806.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	526	526	518	522	522	50
15°	483	476	458	452	448	135
25°	385	372	360	358	353	177
35°	288	272	256	256	250	179
45°	190	178	166	154	146	147
55°	92	97	94	90	90	88
65°	48	49	52	54	55	48
75°	20	21	24	27	28	22
85°	2	2	3	6	8	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	531.2	531.2	531.2	531.2	531.2
2.5°	529.5	530.4	525.3	530.4	532.1
5°	526.2	526.2	518.5	521.9	521.9
7.5°	520.2	519.4	507.5	507.5	506.7
10°	510.9	507.5	493.2	490.6	488.9
12.5°	499.1	493.2	476.2	472.0	469.5
15°	483.0	476.2	457.6	451.7	448.3
17.5°	459.3	452.6	436.5	429.7	426.3
20°	434.8	424.6	412.8	406.9	403.5
22.5°	409.4	397.6	386.6	382.4	379.0
25°	384.9	372.2	359.5	357.8	352.7
27.5°	361.2	346.0	333.3	332.4	328.2
30°	335.8	319.8	306.2	307.1	302.8
32.5°	312.1	296.9	280.8	281.7	276.6
35°	287.6	271.5	256.3	255.5	250.4
37.5°	262.2	247.0	232.6	229.2	224.2
40°	239.4	224.2	208.9	203.0	197.9
42.5°	214.9	201.3	187.8	178.5	171.7
45°	190.3	178.5	165.8	154.0	146.3
47.5°	166.6	157.3	146.3	132.0	126.9
50°	143.0	136.2	126.9	114.2	111.7
52.5°	118.4	115.9	110.0	101.5	100.7
55°	92.2	97.3	93.9	90.5	89.7
57.5°	77.8	78.7	81.2	80.4	80.4
60°	66.8	66.8	70.2	71.1	71.1
62.5°	56.7	57.5	60.9	62.6	62.6
65°	48.2	49.1	51.6	54.1	55.0
67.5°	39.8	41.4	44.0	46.5	47.4
70°	32.1	33.8	37.2	39.8	40.6
72.5°	26.2	27.1	30.5	33.0	33.8
75°	20.3	21.1	23.7	27.1	27.9
77.5°	14.4	16.1	18.6	21.1	22.8
80°	10.2	11.0	12.7	16.1	16.9
82.5°	5.9	6.8	8.5	11.0	11.8
85°	1.7	2.5	3.4	5.9	7.6
87.5°	0.0	0.0	0.0	1.7	3.4
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	14.05	15.45	14.42	15.76	16.08	14.24	15.63	14.60	15.95	16.26
	3H	15.19	16.43	15.56	16.76	17.12	15.69	16.94	16.07	17.27	17.63
	4H	15.54	16.70	15.94	17.05	17.43	16.24	17.40	16.64	17.75	18.13
	6H	15.72	16.79	16.14	17.16	17.55	16.65	17.72	17.06	18.09	18.48
	8H	15.75	16.77	16.18	17.16	17.56	16.77	17.79	17.20	18.18	18.58
	12H	15.73	16.71	16.17	17.09	17.52	16.86	17.83	17.29	18.21	18.64
4H	2H	14.51	15.68	14.91	16.03	16.41	14.66	15.82	15.06	16.17	16.56
	3H	15.85	16.81	16.26	17.21	17.61	16.33	17.29	16.75	17.69	18.10
	4H	16.29	17.15	16.73	17.57	18.01	17.00	17.86	17.43	18.28	18.72
	6H	16.57	17.31	17.03	17.75	18.22	17.53	18.27	17.99	18.72	19.18
	8H	16.61	17.30	17.08	17.75	18.22	17.70	18.39	18.17	18.84	19.31
	12H	16.61	17.22	17.09	17.70	18.18	17.82	18.44	18.30	18.92	19.39
8H	4H	16.51	17.20	16.97	17.65	18.12	17.15	17.84	17.61	18.29	18.76
	6H	16.86	17.42	17.36	17.92	18.40	17.78	18.35	18.28	18.84	19.32
	8H	16.93	17.44	17.45	17.96	18.45	18.01	18.52	18.53	19.03	19.52
	12H	16.95	17.40	17.46	17.89	18.46	18.19	18.64	18.71	19.14	19.71
12H	4H	16.52	17.13	17.00	17.62	18.09	17.13	17.75	17.62	18.23	18.70
	6H	16.88	17.39	17.40	17.90	18.40	17.77	18.28	18.29	18.80	19.29
	8H	17.00	17.45	17.51	17.94	18.51	18.05	18.50	18.56	18.99	19.56